DOCUMENT RESUME

ED 392 937 CE 071 072

AUTHOR Barton, Paul E.; Coley, Richard J.
TITLE Captive Students: Education and Training in America's Prisons. Policy Information Report.
INSTITUTION Educational Testing Service, Princeton, NJ. Policy Information Center.
PUB DATE Jan 96
NOTE 35p.
AVAILABLE FROM Policy Information Center, Mail Stop 04-R, Educational Testing Service, Rosedale Road, Princeton, NJ 08541-0001 ($9.50 prepaid).
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Adult Basic Education; *Correctional Education; Curriculum; High School Equivalency Programs; *Outcomes of Education; Prisoners; *Program Effectiveness; Program Evaluation; *Public Policy; *Recidivism; Research Reports; *State Programs; Vocational Education

ABSTRACT

The United States has a history of vacillating between rehabilitation and punishment for prisoners. The current mood is to devote resources to building more prisons and to strengthen law enforcement and sentencing policies. Within the last 15 years, the U.S. prison population has tripled, with minority groups being overrepresented in prisons. Using instruments such as the five-level scale used in the 1992 National Adult Literacy Survey, about one-third of prisoners perform at Level 1 (the lowest) and another one-third perform at Level 2. Thus two out of three prisoners cannot consistently perform Level 3 tasks such as writing a letter to explain a billing error, entering information into an automobile maintenance form, or calculating miles per gallon. A survey of the states showed that about 30 percent of all state and federal prisoners have been to classes, half of them for 3 months or more. Only 13 percent had participated in vocational classes. Although corrections spending has grown dramatically at the state level, education budgets have not experienced comparable growth. Among the states, New York and Texas spent the most for education; Minnesota tops the list of per-capita spending on education for inmates. New Jersey spends the most per participating prisoner. In 16 states, all inmates are eligible, whereas 21 systems report that between 70-99 percent are eligible. In most states, between one-quarter and one-half are enrolled. A review of 72 evaluations of prison programs, conducted in 1993, found that 9 of 14 studies showed a positive effect on reducing recidivism and 3 of 4 studies showed a positive effect on post-release employment success. Ten of 13 studies showed a positive effect of vocational education on recidivism, and 10 of 14 showed a positive effect of college education on recidivism. The study did not offer recommendations but delivered the results for policy considerations. (State prison education statistics are included in the study.) (KC)

ED 392 937

POLICY INFORMATION REPORT

CAPTIVE STUDENTS:

Education and Training in America's Prisons

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January 1996

PREFACE

In a society and economy demanding ever more education, both for citizenship and for productivity, we increasingly look to a life of learning and expanding skills. But we tend to overlook an ever growing population that has very low average levels of literacy—those in our state and federal prison systems. It is a growing share of our nation's population. The Associated Press reported in December of 1995 that the number of state and federal prison inmates grew by a record 89,707 in the twelve months ending June 30, 1995, the largest annual increase in history.

The incarceration rate also set another record. The United States now locks up a greater share of its residents than any other nation.

The bulk of these prisoners, who now number more than one million, are young adults. Most of them will be returning to society at some point. This Policy Information Report examines the literacy levels of these prisoners, looks at the role that education is currently playing in our nation's prisons, and provides a discussion of the results.

Paul E. Barton
Director
Policy Information Center

ACKNOWLEDGMENTS

We wish to acknowledge two sources of data used in this report. The data on prisoner literacy are drawn from the National Adult Literacy Survey, conducted by Educational Testing Service for the National Center for Education Statistics. Information on state education and training programs was drawn from a survey conducted by the Corrections Compendium.

We also wish to acknowledge the help of several individuals who reviewed the report and provided valuable suggestions for its improvement. We thank Eric Hansen and Howard Wainer of Educational Testing Service and Stephen Steurer of the Correctional Education Association. Carla Cooper provided desktop publishing services, Amanda McBride and Carrie Keith edited the report, Ric Bruce designed the cover, and Jim Chewning coordinated production.

- The United States has a history of vacillating between rehabilitation and punishment for our imprisoned population. The current mood is to devote resources to building more prisons and to strengthen law enforcement and sentencing policies.

- While the number of arrests has remained relatively stable over the last two decades or so, the U.S. prison population has tripled since 1980. If this trend continues, the U.S. will soon have more people incarcerated than in four-year colleges.

- Minority groups are overrepresented in prisons. One out of every three Black men in their 20s is under the supervision of the criminal justice system on any given day.

THE LITERACY OF PRISONERS

- The 1992 National Adult Literacy Survey enables us to take a close look at the literacy skills of persons incarcerated in state and federal prisons, and it allows us to compare these skills with those of the U.S. adult population.

- Using printed material of the kind encountered in workplaces and daily life, the assessment establishes that critical literacy skills are very weak in a large proportion of the prisoner population.

- Specifically, on a scale of 1 to 5 (where 1 is the lowest level), about one-third of prisoners performed at Level 1. Individuals who perform at this level are unlikely to be successful at such tasks as interpreting instructions from an appliance warranty, locating an intersection on a street map, identifying and entering background information on an application for a Social Security card, or calculating the total costs of a purchase from an order form.

- Another one-third performed in Level 2. Thus two out of three prisoners cannot consistently perform Level 3 tasks such as writing a letter to explain a billing error, entering information into an automobile maintenance form, or calculating miles per gallon using information given on a mileage record chart.

- Only about one in 20 are in Level 4, and virtually none are in Level 5.

THE PRISON EDUCATION ENTERPRISE — NATIONAL LEVEL

- Overall, 30 percent of state and federal prison inmates had been to education classes. Of those who attended, more than half did so for three months or more.

- Only 13 percent had participated in vocational classes.

- Sixty-nine percent were working within the prison in industry or institutional maintenance jobs.

THE PRISON EDUCATION ENTERPRISE — STATE LEVEL

- While corrections spending has grown dramatically at the state level, education budgets have not experienced comparable growth. In fact, total education spending in 1993-1994 was actually less, overall, than in the previous year.

- New York and Texas spent the most for education—$50 million and $40.7 million, respectively—while Montana, Alaska, and Wisconsin spent less than $500,000.

- When the total education budget is divided by the total number of inmates, Minnesota tops the list, spending more than $2,000 per inmate, while most systems report spending only several hundred dollars or so per inmate.

- When the total education budget is divided by the

number of inmates participating in education programs, New Jersey is the highest spending state, providing $6,517 for each program participant. Idaho, Alaska, and Wisconsin, on the other hand, spend less than $400 per participant. Most states appear to be spending between $1,000 and $3,000 per inmate participant.

- In 16 state systems, all inmates are eligible to participate, while 21 systems report that between 70 and 99 percent are eligible.
- The percentage of inmates enrolled in education programs in each state ranges from a high of 86 percent in Kentucky to a low of 7 percent in Nebraska. In most states, between one-quarter and one-half are enrolled.
- New York and Ohio provide services for more than 20,000 inmates, while in Delaware, South Dakota, Vermont, Montana, Nebraska, and North Dakota fewer than 500 inmates participate.
- Successful program completion rates range from 75 percent and up in Iowa, South Dakota, and Oregon, to 20 percent or less in New Mexico, California, Ohio, Oklahoma, and Arizona.
- Thirty-seven of the 44 states responding to the survey said that there was a waiting list in their systems for services.
- Twenty-one state systems require inmates to attend classes, usually based on some criterion or set of criteria like test scores or grade level attained.
- Forty-one of the responding state corrections systems provide inmates some type of incentive for attending classes.
- Twenty-one of the systems offer instruction in a second language.
- Vocational/technical, adult basic education (ABE), and General Educational Development (GED) programs were nearly universally offered. Special education services are offered in 31 state systems. Higher education, especially beyond the two-year degree level, was the least likely to be offered.

WHAT PRISON EDUCATION ACCOMPLISHES

- A review of 72 evaluations of prison programs, conducted in 1993 by Gerber and Fritsch, found that:

  For basic and secondary education, 9 of 14 studies showed a positive effect on reducing recidivism, and 3 of 4 studies showed a positive effect on post-release employment success.

  For vocational education, 10 of 13 studies showed a positive effect on recidivism, and 5 of 7 studies showed a positive effect on post-release employment success.

  For college-level education, 10 of 14 studies showed a positive effect on recidivism, and 3 out of 3 showed a positive effect on post-release employment success.

- A large-scale study in Texas, by Adams et al. in 1991 and 1992, found that programs of longer duration had a greater payoff in terms of recidivism.
- A 1993 study by the Federal Bureau of Prisons found that the primary reasons prisoners give for participating in education programs are self-improvement, obtaining marketable skills, and enhancing chances of not committing a crime after release.

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There was a time in American history when jails were only way stations to punishment—the stocks, or worse. It may come as a surprise that the first true American prison, where the punishment was confinement itself, was not created until 1791. That prison was the Walnut Street Jail in Philadelphia, established by Quakers. It had three objectives: public security, reformation of prisoners, and "humanity toward those unhappy members of society."

Reflecting the last two objectives, the jail's inspectors reported that "edifying persons have at all times access to the prisoners." A school was added to the prison in 1798 as

> *the most beneficial ... for learning for some and improving for others in the first principles of reading, writing and arithmetic.*[1]

Since then, education has been an important part of our prison system; and so has the controversy over rehabilitation versus punishment. By the 1820s, Samuel M. Hopkins of the New York Legislature was arguing that "inmate life had not been sufficiently severe and should produce more terror and suffering." Such views gave rise to the Auburn, New York, system, which subscribed to the belief that "too much faith had been placed in [the convict's] reformability." Education got little attention in the Auburn system.[2]

During the late nineteenth century, Zebulon Brockway became known across the nation for his use of education and training at Elmira Reformatory from 1876 to 1900. According to Schlossman and Spillane, he "placed the academic programs (and later the vocational programs) into the hands of professional, full-time teachers who were drawn from the community." Sentences were indeterminate, and time served became heavily dependent on participation and performance in the education and training system.

When rehabilitation has been in favor, education in prisons has prospered. When it has been out of favor, it has languished. For example, the use of education and training spread throughout the system in the 1930s, receded, and came back into favor in the 1960s. Since the 1980s, tough treatment has been in the ascendancy, although it exists in almost all prisons to a greater or lesser degree.

According to Schlossman and Spillane, "correctional education was largely excluded from the main currents of prison reform during the 1980s."[3] They report that opinion polls showed that Americans became "increasingly hostile and suspect of all rehabilitative programs aimed at reintegrating prisoners into the social mainstream."

In more recent years, there has been competition and conflicts between correctional educators and therapists, such as clinical psychologists and psychiatrists, in defining prison reform strategies. Schlossman and Spillane report that this remains a problem.

According to testimony given by Stephen Steurer, Executive Director of the Correctional Education Association, "The current general national and state mood is to fund prison building and de-emphasize programs of all kinds, even though research in substance-abuse programming and education indicates that such programs reduce recidivism, increase life and job skills, and are very cost-effective."[4]

As education approaches have waxed and waned, the flow into the prison system has changed from a steadily rising stream to a torrent, overflowing the banks of prison capacity.

While the total number of arrests has remained relatively stable since the mid-1970s, with a minor increase between 1987 and 1990, several factors have led to increases in convictions and, thus, incarceration. They include enhanced law enforcement efforts, advances in forensic technologies, abolishing discretionary parole, eliminating time off for good behavior (good time), and adding or increasing percentage

1 For this early history, see Negley K. Teeters, *The Cradle of the Penitentiary: The Walnut Street Jail at Philadelphia, 1773-1835*. Sponsored by the Pennsylvania Prison Society, 1955.

2 Walter Silva, "A Brief History of Prison Higher Education in the United States," In M. Williford (Ed.) *Higher Education in Prison: A Contradiction in Terms?* (p. 20). Oryx Press, Phoenix, AZ, 1994.

3 Steven Schlossman and Joseph Spillane, *Bright Hopes, Dim Realities: Vocational Innovation in American Correctional Education*, National Center for Research in Vocational Education, University of California at Berkeley (undated).

4 Stephen Steurer, Executive Director, Correctional Education Association, from testimony before the House Subcommittee on Early Childhood, Youth, and Family hearings on the Adult Education Act and the National Literacy Act, May 2, 1995.

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requirements for time to be served in prison before release consideration.[5]

In California, in 1995 alone, the state legislature passed 45 sentence-enhancement laws. These laws, along with other factors, are expected to pack California prisons with 97,000 more inmates over the next six years. To house them, cash-strapped Californians will have to spend more than $2 billion for new prisons.

Florida faces the same dilemma. New prison construction related to a plan to make inmates serve 85 percent of their sentences is expected to cost an estimated $2 billion over the next five years. Florida Governor Lawton Chiles has said this expense will consume every additional dollar of revenue the state hopes to generate from its current economic recovery at the expense of areas like education.[6]

So while the crime rate has remained relatively flat over the last 20 years, the U.S. prison population has tripled since 1980. At the end of 1994, the number of Americans under the control of the criminal justice system reached 5 million, including a record 1.5 million inmates in federal and state prisons and local jails, and 3.5 million convicted criminals on probation or parole. If this trend continues, as many criminal justice professionals predict, the number of Americans under the control of the criminal justice system will soon approach the number of full-time students enrolled in four-year colleges and universities in the United States.[7] The U.S. has now reached the point where the country is oscillating between first and second in the world in incarceration rates.[8]

More alarming still is the vast overrepresentation of minority groups in the criminal justice system. A recent study has revealed that one out of every three Black men in their 20s is under the supervision of the criminal justice system on any given day (in prison, on parole, or on probation). Five years ago that figure was one in four, and corrections professionals expect that that ratio will reach one in two within a few years.[9]

Table 1
Percentage Distribution of Adult Inmates in State Correctional Institutions, as of June 30, 1994

Males		**93%**
	Black	45%
	White	33%
	Hispanic	13%
	Other	2%
Females		**7%**
	Black	3%
	White	2%
	Hispanic	<1%
	Other	<1%

Source: *Directory, Juvenile and Adult Correctional Department Institutions, Agencies, and Paroling Authorities*, Lanham, MD: American Correctional Association, 1995.

Table 1 shows the racial/ethnic makeup of the U.S. prison population as of June 30, 1994. Black males, who make up only about 6 percent of the U.S. population, comprise 45 percent of the prison population. Hispanic males are also overrepresented among prisoners.

• • • •

While it is generally known that the prison population is, on the average, less educated than the population at large, we now know specifically how much less that is, as a result of the National Adult Literacy Study conducted in 1992 by Educational Testing Service, under contract with the National Center for Education Statistics. That study included a separate sample of the state and federal prison population, and we summarize the results in this report.

We ask in this report, to what extent can these inmates be considered students, making up their educational deficits before they return to a society and a labor market that has little place for such low levels of literacy.

We also look at what is known about the effectiveness of educational approaches in terms of post-release employment success and recidivism. And we present the current state of education and training in prisons, for the nation and for the states.

5 James A. Collins, Executive Director, Texas Department of Criminal Justice, and Chair, ACA Legislative Affairs Committee, from testimony before the Committee on the Judiciary, United States Senate, July 27, 1995.
6 *Trenton Times*, November 5, 1995, p. A30.
7 *The New York Times*, August 10, 1995, p. A14.
8 Collins
9 *The New York Times*, October 8, 1995, p. A18.

The Literacy of Prisoners

This section is about the literacy of inmates in state and federal prisons, and how it compares with the U.S. adult population. It draws on data from the National Adult Literacy Survey, a large-scale study mandated by Congress and conducted by the National Center for Education Statistics through a contract with Educational Testing Service. The survey was administered during the first eight months of 1992, when trained interviewers gathered information from nearly 27,000 respondents in homes and prisons across the country. ***Adult Literacy in America***, written by Irwin S. Kirsch, Ann Jungeblut, Lynn Jenkins, and Andrew Kolstad, is the first report from the survey. The data for prisoners was published in ***Literacy Behind Prison Walls***, by Karl O. Haigler et al.

MEASURING LITERACY

To analyze the literacy skills of welfare recipients, or of any group, it is first necessary to define what is meant by "literacy." The term is often used as the opposite of illiteracy, which is typically interpreted to mean that a person cannot read at all, cannot decode the printed word, and cannot comprehend what is written. But literacy has a much richer and deeper meaning than that. Its dictionary definitions range from being able to read and write, to being a well-informed, educated person, and to being familiar with literature.

The National Adult Literacy Survey was guided by the following definition of literacy, adopted by a broadly representative group of experts:

> ***Using printed and written information to function in society, to achieve one's goals, and to develop one's knowledge and potential.***

The survey focused on three areas of literacy proficiency:

Prose literacy — The knowledge and skills needed to understand and use information from texts that include editorials, news stories, poems, and fiction; for example, finding a piece of information in a newspaper article, interpreting instructions from a warranty, inferring a theme from a poem, or contrasting views expressed in an editorial.

Document literacy — The knowledge and skills required to locate and use information contained in materials that include job applications, payroll forms, transportation schedules, maps, tables, and graphs; for example, locating a particular intersection on a street map, using a schedule to choose the appropriate bus, or entering information on an application form.

Quantitative literacy — The knowledge and skills required to apply arithmetic operations, either alone or sequentially, using numbers embedded in printed materials; for example, balancing a checkbook, figuring out a tip, completing an order form, or determining the amount of interest from a loan advertisement.

Based on their performance on the literacy tasks, respondents were assigned scores on the three proficiency scales, each ranging from 0 to 500.

While most previous studies of literacy have attempted to identify the

number of so-called "illiterates," the goal of the National Adult Literacy Survey—to profile the population's literacy skills—was different. Thus, there is no single point on the prose, document, or quantitative literacy scale that separates "illiterates" from "literates." Rather, each scale is divided into five levels of proficiency, each encompassing a range of scores.

Level 1 (0 to 225)
Level 2 (226 to 275)
Level 3 (276 to 325)
Level 4 (326 to 375)
Level 5 (376 to 500)

The individuals who performed in Level 1 demonstrated the lowest literacy proficiencies, while those in Level 5 displayed the highest proficiencies. Similarly, the tasks that characterize Level 1 are the least challenging in the assessment, while those associated with Level 5 are the most difficult.

THE LITERACY OF THE PRISON POPULATION

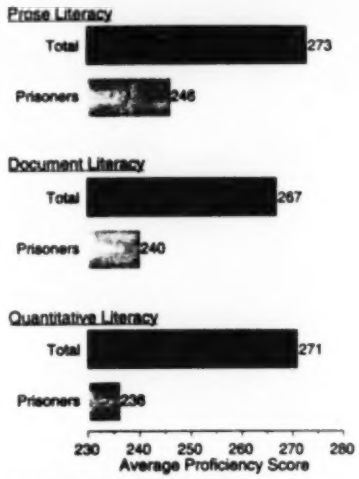
Other studies have documented the problem of limited schooling among prisoners, but to date very little has been known about their actual literacy skills.

This part of the report compares the overall literacy proficiencies of prisoners with those of adults nationwide and examines the distribution of literacy skills in the prison and general populations. Sample tasks are provided to illustrate the types of literacy skills exhibited by those who performed in each of the levels of prose literacy. To avoid burdening the reader with too much detail, we have not shown sample tasks for document and quantitative literacy. These can be found in the complete report, *Literacy Behind Prison Walls*.[10]

As shown in Figure 1, the average prose score of adults in the total population was 273, compared with 246 in the prison population. The figure also shows the difference in document and quantitative literacy scores.

In viewing these results, it is important to remember that not all prisoners have limited literacy proficiencies. Within any population—be it the entire adult population or the prison population—there are some individuals with relatively strong skills and others with comparatively weak ones. The relevant question is, are adults in a particular group of interest (in this case, prisoners) disproportionately likely to display low or high literacy proficiencies? In other words, what is the distribution of skills within the population?

Figure 1
Average Literacy Proficiencies of Adults in the Total and Prison Populations, by Literacy Scale



Source: *National Adult Literacy Survey, 1992.*

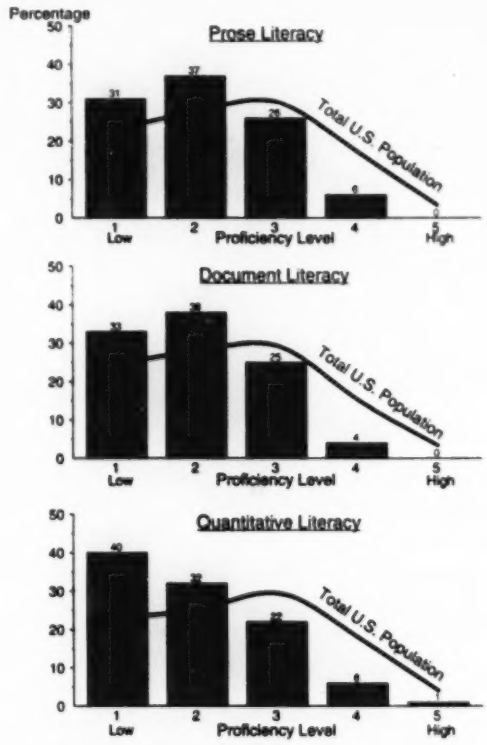
Such questions can be answered by studying the percentages of prisoners who scored in each of the five levels on each literacy scale, and comparing these with the percentages of adults nationwide who did so. These data are very useful because they reveal the heterogeneity of performance within a population—information that would be missing if one looked only at average scores.

These score distributions are shown in Figure 2. In the national population (shown by the line), approximately one out of five adults (21 percent) performed in Level 1 on the prose scale, while 27 percent performed in Level 2, 32 percent performed in Level 3, 17 percent performed in Level 4, and 3 percent performed in Level 5. The distributions of performance across the levels of document and quantitative proficiency were highly similar.

10 Karl O. Haigler et al., *Literacy Behind Prison Walls: Profiles of the Prison Population from the National Adult Literacy Survey*, prepared by Educational Testing Service under contract with the National Center for Education Statistics, U.S. Department of Education, October 1994.

Figure 2

Percentage of Prisoners (Bars) and All Adults (Line) Who Performed in Each Literacy Level, by Literacy Scale



Source: *National Adult Literacy Survey, 1992.*

In contrast, prisoners (shown by the bars) were far more likely than the national population to perform in the lowest literacy levels on each scale and far less likely than the national population to attain the highest levels. More than one-third of prisoners scored in the lowest level of prose, document, and quantitative literacy, and another third performed in the second lowest level. At the other end of the spectrum, just 4 to 7 percent attained the two highest literacy levels on each scale.

These results are sobering, but it is important to recognize that not all prisoners displayed limited literacy skills. On each literacy scale, nearly one-third of the prisoners performed in Level 3 or higher. These findings suggest that the prison population is quite diverse, and data presented later in this report reinforce this view.

The remainder of this section takes a closer look at the distribution of literacy skills within the prison population, compares this distribution with the results for the general population, and examines the types of literacy tasks that characterize performance in each level of prose literacy.

LEVEL 1

More than three out of every 10 prisoners performed in Level 1 on the prose literacy scale, compared to one in five of all adults.

What does it mean to perform in Level 1? On the prose literacy scale, some individuals who score in Level 1 demonstrate the ability to read relatively short pieces of text (such as brief newspaper articles) to find a piece of information that is identical to or synonymous with information given in a directive. Typically, little or no distracting information (that is, information that seems plausible but is incorrect) is present in such tasks. Individuals who perform in Level 1 may succeed with prose tasks that ask them to:

- identify a country mentioned in a short article *(149)*
- locate a piece of information in a sports article *(210)*
- underline a sentence explaining the action stated in a short article *(225)*

Level 1 encompasses a broad range of performance, however, and some adults who perform at the low end of this level are unlikely to be able to accomplish even these types of tasks.

On the document literacy scale, some adults who score in Level 1 are able to locate a piece of information based on a literal match between the directive and the document. Little, if any, distracting information is present. Some adults in this level also display the ability to enter basic information about themselves onto an application form or other type of document. Specifically, individuals performing in the lowest level of document literacy may succeed with tasks that ask them to:

- sign their names on a brief form *(69)*

- locate the time of a meeting on a form *(180)*

- use a pie chart to locate a type of vehicle that has specific sales *(214)*

Some individuals who score at the low end of Level 1, however, are likely to have difficulty performing even these types of tasks.

Some adults who score in the lowest level of quantitative literacy demonstrate the ability to perform single, relatively simple arithmetic operations, such as addition. The numbers to be used in such tasks are provided, and the operation to be performed is specified. More specifically, adults who perform in the lowest level of quantitative literacy may succeed with tasks that require them to:

- total a bank deposit entry *(191)*

Some individuals who score in the low end of this literacy level are unlikely to succeed even with these types of tasks, however.

Percentages in Level 1		
	Total Population	Prisoners
Prose	21	31
Document	23	33
Quantitative	22	40

LEVEL 2

As was found in the Level 1 results, prisoners were more likely than adults in the general population to perform in Level 2 on each literacy scale. Roughly one-third (32 to 38 percent) of prisoners performed in the second level of prose, document, and quantitative literacy, compared with approximately one-quarter (25 to 28 percent) of adults nationwide.

EXAMPLE TASK FOR PROSE LITERACY, LEVEL 1

Underline the sentence that tells what Ms. Chanin ate during the swim.

Swimmer completes Manhattan marathon

The Associated Press

NEW YORK—University of Maryland senior Stacy Chanin on Wednesday became the first person to swim three 28-mile laps around Manhattan.

Chanin, 23, of Virginia, climbed out of the East River at 96th Street at 9:30 p.m. She began the swim at noon on Tuesday.

A spokesman for the swimmer, Roy Brunett, said Chanin had kept up her strength with "banana and honey" sandwiches, hot chocolate, lots of water and granola bars."

Chanin has twice circled Manhattan before and trained for the new feat by swimming about 28.4 miles a week. The Yonkers native has competed as a swimmer since she was 15 and hoped to persuade Olympic authorities to add a long-distance swimming event.

The Leukemia Society of America solicited pledges for each mile she swam.

In July 1983, Julie Ridge became the first person to swim around Manhattan twice. With her three laps, Chanin came up just short of Diana Nyad's distance record, set on a Florida-to-Cuba swim.

Combining the percentages of adults who performed in Levels 1 and 2, one finds that on each literacy scale, between two-thirds and three-quarters of prisoners scored in the two lowest levels, compared with about half the adults in the general population. Clearly then, prisoners are more likely to display limited literacy proficiencies.

What does it mean to perform in Level 2? Adults who score in this level on the prose literacy scale demonstrate the ability to locate a piece of information in a piece of text even when distracting information is present. They also appear to have little difficulty integrating, comparing, and contrasting two or more pieces of information found in a piece of printed material. Individuals in this literacy level are likely to succeed on literacy tasks that ask them to:

- underline the meaning of a term in a brochure on government benefits *(226)*
- locate two types of information in a sports article *(250)*
- interpret instructions from an appliance warranty *(275)*

Percentages in Level 2		
	Total Population	**Prisoners**
Prose	27	37
Document	28	38
Quantitative	25	32

Adults who perform in the second level of document literacy display skill at matching a piece of information in a form or other type of document with information in the directive, when distracting information is present. Low-level inferences are sometimes required in performing such tasks.

EXAMPLE TASK FOR PROSE LITERACY, LEVEL 2

A manufacturing company provides its customers with the following instructions for returning appliances for service:

When returning appliance for servicing, include a note telling as clearly and as specifically as possible what is wrong with the appliance.

A repair person for the company receives four appliances with the following notes attached. Circle the letter next to the note which best follows the instructions supplied by the company.

A **The clock does not run correctly on this clock radio. I tried fixing it, but I couldn't.**

C **The alarm on my clock radio doesn't go off at the time I set. It rings 15-30 minutes later.**

B **My clock radio is not working. It stopped working right after I used it for five days.**

D **This radio is broken. Please repair and return by United Parcel Service to the address on my slip.**

Further, adults in Level 2 demonstrate the ability to integrate information from various parts of a document. They are likely to succeed with literacy tasks that ask them to:

- locate an intersection on a street map *(230)*
- locate eligibility information in a table of employee benefits *(246)*
- identify and enter background information on a Social Security card application *(259)*

Individuals whose scores are in the Level 2 range on the quantitative literacy scale display the ability to perform a single arithmetic operation using numbers that are given to them or that can easily be located in a piece of printed material. The operation to be performed is either stated or easily determined from the format of the material (for example, an order form). Adults who perform in this literacy level are likely to succeed with quantitative tasks that ask them to:

- calculate postage and fees for certified mail *(238)*
- determine the difference in price between tickets for two shows *(246)*
- calculate the total costs of purchase from an order form *(270)*

Adults in Level 2 are also likely to have a very high rate of success in performing the types of literacy tasks associated with Level 1.

LEVEL 3

While prisoners were more likely than adults in the general population to score in the two lowest literacy levels, the pattern reverses in Level 3. On each literacy scale, the percentage of adults in the prison population who scored in this level was lower than the percentage of adults nationwide who did so. Between 22 and 26 percent of prisoners scored in Level 3, compared with between 31 and 32 percent of the adult population overall.

What does it mean to perform in Level 3? Adults who perform in the third level of prose literacy demonstrate the ability to match information in a piece of printed material with information in a directive when low-level inferences are required. They also display skill at integrating information from dense or lengthy text. Specifically, adults performing in this level on the prose scale are likely to succeed with literacy tasks that ask them to:

Percentages in Level 3		
	Total Population	**Prisoners**
Prose	32	26
Document	31	25
Quantitative	31	22

- write a brief letter explaining a billing error *(288)*
- find a sentence in a news article that interprets a situation *(304)*
- read a lengthy article to identify behaviors that meet a stated condition *(316)*

Adults who perform in Level 3 on the document literacy scale appear to have little difficulty integrating several pieces of information from one or more documents. They also display skill at using and interpreting rather complex tables and graphs containing information that is either irrelevant or inappropriate to the task. Individuals who score in this level are likely to succeed with document tasks that ask them to:

- identify information in a bar graph showing energy sources for various years *(277)*
- use a sign-out sheet to respond to a call about a resident *(298)*
- enter information into an automobile maintenance record form *(323)*

Individuals scoring in the third level of quantitative literacy demonstrate skill at performing tasks in which two or more numbers are needed to solve an arithmetic problem, and these numbers must be found in a piece of printed material. The operation(s) to be performed can be determined from the arithmetic relation terms used in the directive. Some of the tasks in this level involve the use of a

EXAMPLE TASK FOR PROSE LITERACY, LEVEL 3

List two things that Chen became involved in or has done to help resolve conflicts due to discrimination.

IDA CHEN is the first Asian-American woman to become a judge of the Commonwealth of Pennsylvania.

She understands discrimination because she has experienced it herself.

Soft-spoken and eminently dignified, Judge Ida Chen prefers hearing about a new acquaintance rather than talking about herself. She wants to know about career plans, hopes, dreams, fears. She gives unsolicited advice as well as encouragement. She instills confidence.

Her father once hoped that she would become a professor. And she would have also made an outstanding social worker or guidance counselor. The truth is that Chen wears the caps of all these professions as a Family Court judge of the Court of Common Pleas of Philadelphia County, as a participant in public advocacy for minorities, and as a particularly sensitive, caring person.

She understands discrimination because she has experienced it herself. As an elementary school student, Chen tried to join the local Brownie troop. "You can't be a member," she was told. "Only American girls are in the Brownies."

Originally intent upon a career as a journalist, she selected Temple University because of its outstanding journalism department and affordable tuition. Independence being a personal need, she paid for her tuition by working for Temple's Department of Criminal Justice. There she had her first encounter with the legal world and it turned her career plans in a new direction — law school.

Through meticulous planning, Chen was able to earn her undergraduate degree in two and a half years and she continued to work three jobs. But when she began her first semester as a Temple law student in the fall of 1973, she was barely able to stay awake. Her teacher Lynne Abraham, now a Common Pleas Court judge herself, couldn't help but notice Chen yawning in the back of the class, and when she determined that this student was not a party animal but a workhorse, she arranged a teaching assistant's job for Chen on campus.

After graduating from Temple Law School in 1976, Chen worked for the U.S. Equal Employment Opportunity Commission where she was a litigator on behalf of plaintiffs who experienced discrimination in the workplace, and then moved on to become the first Asian-American to serve on the Philadelphia Commission on Human Relations.

Appointed by Mayor Wilson Goode, Chen worked with community leaders to resolve racial and ethnic tensions and also made time to contribute free legal counsel to a variety of activist groups.

The "Help Wanted" section of the newspaper contained an entry that aroused Chen's curiosity — an ad for a judge's position. Her application resulted in her selection by a state judicial committee to fill a seat in the state court. And in July of 1988, she officially became a judge of the Court of Common Pleas. Running as both a Republican and Democratic candidate, her position was secured when she won her seat on the bench at last November's election.

At Family Court, Chen presides over criminal and civil cases which include adult sex crimes, domestic violence, juvenile delinquency, custody, divorce and support. Not a pretty picture.

Chen recalls her first day as judge, hearing a juvenile dependency case — "It was a horrifying experience. I broke down because the cases were so depressing," she remembers.

Outside of the courtroom, Chen has made a name for herself in resolving interracial conflicts, while glorying in her Chinese-American identity. In a 1986 incident involving the desecration of Korean street signs in a Philadelphia neighborhood, Chen called for a meeting with the leaders of that community to help resolve the conflict.

Chen's interest in community advocacy is not limited to Asian communities. She has been involved in Hispanic, Jewish and Black issues, and because of her participation in the Ethnic Affairs Committee of the Anti-Defamation League of B'nai B'rith, Chen was one of 10 women nationwide selected to take part in a mission to Israel.

With her recently won mandate to judicate in the affairs of Pennsylvania's citizens, Chen has pledged to work tirelessly to defend the rights of its people and contribute to the improvement of human welfare. She would have made a fabulous Brownie.

— Jessica Schultz

calculator. Specifically, adults who perform in Level 3 on the quantitative scale are likely to succeed with tasks that ask them to:

- calculate the difference between the regular and sales prices of an item in an advertisement *(278)*
- determine the discount from an oil bill if paid within 10 days *(308)*
- calculate miles per gallon using information from a mileage record chart *(321)*

Adults in Level 3 are also likely to have a very high rate of success in performing the types of literacy tasks associated with Levels 1 and 2.

LEVEL 4

Prisoners were far less likely than those in the general population to attain the fourth literacy level. Across the literacy scales, 15 to 17 percent of adults nationwide reached Level 4, the second highest level defined in the survey. In contrast, just 4 to 6 percent of prisoners did so. Stated differently, prisoners were approximately three times less likely than the general population to attain the fourth level of

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prose, document, and quantitative literacy.

What does it mean to perform in Level 4? Individuals who scored in this level of prose literacy display the ability to match multiple pieces of information in a piece of writing. Further, they appear to be able to integrate or synthesize information from complex or lengthy pieces of text and to make complex inferences about what they read. More specifically, they are likely to succeed with prose tasks that ask them to:

- state in writing an argument made in a lengthy newspaper article *(328)*
- contrast views expressed in two editorials on fuel-efficient cars *(359)*
- compare two metaphors used in a poem *(374)*

Percentages in Level 4		
	Total Population	**Prisoners**
Prose	17	6
Document	15	4
Quantitative	17	6

Individuals who perform in Level 4 on the document literacy scale demonstrate the ability to make high-level inferences to interpret various types of documents. They also appear to have little difficulty performing document literacy tasks that involve

EXAMPLE TASK FOR PROSE LITERACY, LEVEL 4

Contrast Dewey's and Hanna's views about the existence of technologies that can be used to produce more fuel-efficient cars while maintaining the size of the car.

Face-Off: Getting More Miles Per Gallon

Demand cars with better gas mileage

By Robert Dewey
Guest columnist

WASHINGTON — Warning: Automakers are resurrecting their heavy-metal dinosaurs, aka gas guzzlers.

Government reports show that average new-car mileage has declined to 28.2 miles per gallon — the 1986 level. To reverse this trend, Congress must significantly increase existing gas-mileage standards.

More than half our Nobel laureates and 700 members of the National Academy of Sciences recently called global warming "the most serious environmental threat of the 21st century." In 1988, oil imports climbed to a near-record 46% of U.S. consumption. Increasing gas mileage is the single biggest step we can take to reduce oil imports and curb global warming. Greater efficiency also lowers our trade deficit (oil imports represent 40% of it) and decreases the need to drill in pristine areas.

Bigger engines and bigger cars mean bigger profits for automakers, who offer us the products they want us to buy. More than ever, Americans want products that have less of an environmental impact. But with only a few fuel-efficient cars to choose from, how do we find ones that meet all our needs?

Government studies show automakers have the technology to dramatically improve gas mileage — while maintaining the 1987 levels of comfort, performance and size mix of vehicles. Automakers also have the ability to make their products safer. The cost of these improvements will be offset by savings at the gas pump[1]

Cars can average 45 mpg and light trucks 36 mpg primarily by utilizing engine and transmission technologies already on a few cars today. Further improvements are possible by using technologies like the two-stroke engine and better aerodynamics that have been developed but not used.

When the current vehicle efficiency standards were proposed in 1974, Ford wrongly predicted that they "would require either all sub-Pinto-sized vehicles or some mix of vehicles ranging from a sub-subcompact to perhaps a Maverick." At that time, Congress required a 100% efficiency increase; raising gas mileage to 45 mpg requires only a 60% increase.

Americans want comfortable, safe and efficient cars. If automakers won't provide them, Congress must mandate them when it considers the issue this summer.

Let's hope lawmakers put the best interest of the environment and the nation ahead of the automakers' lobbyists and political action committees.

Robert Dewey is a conservation analyst for the Environmental Action Foundation.

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Don't demand end to cars people want

By Thomas H. Hanna
Guest columnist

DETROIT — Do Americans look forward to the day when they'll have to haul groceries, shuttle the kids to and from school or take family vacations in compact and subcompact cars?

I doubt it — which is why U.S. and import carmakers oppose the 40-miles-per-gallon to 45 mpg corporate average fuel economy mandates that some are pushing in Congress, either to curb tailpipe carbon dioxide emissions because of alleged global warming or for energy conservation.

Since the mid-1970s, automakers have doubled the fleet average fuel economy of new cars to 28 mpg — and further progress will be made.

Compact and subcompact cars with mileage of 40 mpg or better are now available, yet they appeal to only 5% of U.S. car buyers.

But to achieve a U.S. fleet average of 45 mpg to 40 mpg, carmakers would have to sharply limit the availability of family-size models and dramatically trim the size and weight of most cars.

There simply are not magic technologies to meet such a standard.

Almost every car now sold in the USA would have to be drastically downsized, and many would be obsolete.

As a result, Americans such your would be unable to buy the vehicles most suited for their needs: mid- and family-size models, luxury automobiles, mini-vans, small trucks and utility vehicles.

The fleet shift to compacts and subcompacts could also force the closing of assembly plants, supplier firms and dealerships, at a cost of thousands of U.S. jobs.

Although a growing number of scientists are skeptical of global warming, the issue deserves thorough international scientific evaluation, not premature unilateral U.S. action.

Carbon dioxide emissions from U.S. vehicles total less than 3.5% of worldwide "greenhouse" gases. Even doubling today's corporate average fuel economy for U.S. cars — if technically possible — would cut these gases about 3%

Whatever the motivation — alleged global warming or energy conservation — the stakes are high for millions of Americans and thousands of U.S. jobs in unrealistic corporate average fuel economy mandates.

Thomas H. Hanna is president and chief executive officer of the Motor Vehicle Manufacturers Association of the United States.

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the use of conditional information. Adults who score in the fourth level on this literacy scale are likely to succeed with tasks that ask them to:

- use a table to identify the percentage of cases that meet specified conditions *(342)*
- use a schedule to determine which bus to take in a given situation *(352)*
- use a table to identify a pattern in oil exports over time *(352)*

Adults who score in the fourth level of quantitative literacy appear to have little difficulty performing two or more arithmetic operations in sequence. They also demonstrate skill at performing single arithmetic operations in which the quantities are found in different types of displays, or in which the operations must be inferred from the information given or from prior knowledge. More specifically, individuals who score in Level 4 on the quantitative literacy scale are likely to succeed with tasks that ask them to:

- use information in a news article to calculate how much money should go to raising a child *(350)*
- use an eligibility pamphlet to calculate how much money a couple would receive for basic supplemental security income in one year *(368)*

Adults in Level 4 are also likely to have a very high rate of success with the types of literacy tasks associated with performance in Levels 1, 2, and 3.

LEVEL 5

Only small percentages of adults in the general population (3 to 4 percent) and virtually none of the prisoners attained the highest level of prose, document, and quantitative literacy.

What does it mean to perform in Level 5? Adults in this level of prose literacy appear to have little difficulty finding information in dense text that contains a considerable amount of irrelevant (or distracting) information. Also, they demonstrate the ability to make high-level inferences and to use specialized background knowledge to help them understand what they read. Adults in Level 5 on the prose scale are likely to succeed with tasks that ask them to:

Percentages in Level 5		
	Total population	**Prisoners**
Prose	3	0
Document	3	0
Quantitative	4	1

- compare the approaches stated in a narrative on growing up *(382)*
- summarize two ways in which lawyers may challenge prospective jurors *(410)*
- interpret a brief phrase from a lengthy news article *(423)*

Individuals who score in the highest level of document literacy display the ability to search through complex displays that contain several pieces of distracting information. They also appear to have little difficulty making high-level inferences and using specialized background knowledge to interpret information in documents. They are likely to succeed with document literacy tasks that ask them to:

- use information in a table to complete a graph, including labeling the axes *(378)*
- use a table to compare credit cards, identify two categories of comparison, and write about the differences *(387)*
- use information from a table to write a paragraph about a school survey *(395)*

Those scoring in the highest level on the quantitative scale demonstrate skill at performing multiple arithmetic operations sequentially. They are also able to find the features of problems in a piece of printed material and to use their background knowledge to determine the quantities or operations needed. Individuals who score in the fifth

level of quantitative literacy are likely to succeed with tasks that ask them to:

- use an order form to calculate the shipping costs and total costs of items *(382)*
- use information from a news article to calculate the difference in times for completing a race *(405)*
- use a calculator to figure the total cost of carpet for a room *(421)*

Adults in Level 5 are likely to have a high rate of success in performing all the literacy tasks in the assessment—not only those in the highest level on each scale but also those associated with all the preceding levels.

EXAMPLE TASK FOR PROSE LITERACY, LEVEL 5

Identify and summarize the two kinds of challenges that attorneys use while selecting members of a jury.

DO YOU HAVE A QUESTION?

QUESTION: What is the new program for scheduling jurors?

ANSWER: This is a new way of organizing and scheduling jurors that is being introduced all over the country. The goals of this program are to save money, increase the number of citizens who are summoned to serve and decrease the inconvenience of serving.

The program means that instead of calling jurors for two weeks, jurors now serve only one day, or for the length of one trial if they are selected to hear a case. Jurors who are not selected to hear a case are excused at the end of the day, and their obligations to serve as jurors are fulfilled for three years. The average trial lasts two days once testimony begins.

An important part of what is called the One Day – One Trial program is the "standby" juror. This is a person called to the Courthouse if the number of cases to be tried requires more jurors than originally estimated. Once called to the Courthouse, the standby becomes a "regular" juror, and his or her service is complete at the end of one day or one trial, the same as everyone else.

Q. How was I summoned?

A. The basic source for names of eligible jurors is the Driver's License list which is supplemented by the voter registration list. Names are chosen from these combined lists by a computer in a completely random manner.

Once in the Courthouse, jurors are selected for a trial by this same computer and random selection process.

Q. How is the Jury for a particular trial selected?

A. When a group of prospective jurors is selected, more than the number needed for a trial are called. Once this group has been seated in the courtroom, either the Judge or the attorneys ask questions. This is called *voir dire*. The purpose of questions asked during *voir dire* is to ensure that all of the jurors who are selected to hear the case will be unbiased, objective and attentive.

In most cases, prospective jurors will be asked to raise their hands when a particular question applies to them. Examples of questions often asked are: Do you know the Plaintiff, Defendant or the attorneys in this case? Have you been involved in a case similar to this one yourself? Where the answer is yes, the jurors raising hands may be asked additional questions, as the purpose is to guarantee a fair trial for all parties. When an attorney believes that there is a legal reason to excuse a juror, he or she will challenge the juror for cause. Unless both attorneys agree that the juror should be excused, the Judge must either sustain or override the challenge.

After all challenges for cause have been ruled upon, the attorneys will select the trial jury from those who remain by exercising peremptory challenges. Unlike challenges for cause, no reason need be given for excusing a juror by peremptory challenge. Attorneys usually exercise these challenges by taking turns striking names from a list until both are satisfied with the jurors at the top of the list or until they use up the number of challenges allowed. Challenged jurors and any extra jurors will then be excused and asked to return to the jury selection room.

Jurors should not feel rejected or insulted if they are excused for cause by the Court or peremptorily challenged by one of the attorneys. The *voir dire* process and challenging of jurors is simply our judicial system's way of guaranteeing both parties to a lawsuit a fair trial.

Q. Am I guaranteed to serve on a jury?

A. Not all jurors who are summoned actually hear a case. Sometimes all the Judges are still working on trials from the previous day, and no new jurors are chosen. Normally, however, some new cases begin every day. Sometimes jurors are challenged and not selected.

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The Prison Education Enterprise

NATIONAL LEVEL

From the National Adult Literacy Survey (NALS) we now have specific information, at a national level, about how involved inmates in state and federal prisons are in education and training, and about their work experiences while in prison. While these data can tell us a lot about levels of activity, and the literacy of those engaged in these activities, they do not permit an evaluation of program effectiveness in terms of reducing recidivism. This requires longitudinal studies or controlled experiments.

When the General Accounting Office asked federal prisoners why they participated in education and training programs, more than 70 percent cited self-improvement, and around 60 percent said they wanted to obtain a marketable skill. Forty percent said they participated to reduce their chances of returning to prison.

The NALS study finds that 30 percent of state and federal prison inmates had attended education classes. For those with the least education, we were interested in how intense the instruction was.

Table 2
Duration of Education Classes for Prisoners with Less than a High School Education

Duration in Months	Percent
less than 1	12
1 to 3	34
3 to 6	30
more than 6	24
	100

Source: Unpublished data from the *National Adult Literacy Survey, 1992*

As shown in Table 2, almost half had participated for less than three months, not very long considering the low levels of literacy of prisoners with less than a high school education. However, another 30 percent were enrolled from three to six months, and almost a fourth for more than six months—durations, assuming good instruction, that could make a difference.

Just 13 percent had participated in vocational classes. For prisoners at greatest risk in the employment world (those with less than a high school education), more than half had participated for less than three months. However, one in five participated for 13 months or more, possibly enough time for serious training.

Twenty percent participated in both education and vocational classes.

Both literacy and vocational skills can be enhanced through work experience. While the stereotype of a prisoner is of someone sitting on a bench in a small cell, the reality is that most inmates work while they are in prison. These jobs vary, of course, in their educational and experiential value.

Accordining to the NALS study, 69 percent of the surveyed inmates were working. While the largest percentage of these were engaged in janitorial work, 16 percent were in food preparation, 13 percent in maintenance, and 12 percent were working on the grounds. While a lot

has been heard about "prison industries," just under 7 percent were engaged in goods production.

Interestingly, those who have jobs in prisons have, on the average, higher education and literacy than those who do not.

STATE LEVEL

At least half of all state correctional institutions in the United States have cut their inmate education programs during the last five years.[11] While vocational and technical programs have been hit hardest, many states have also cut adult basic education (ABE) programs, GED programs, two- and four-year college programs, and special education programs.

Not surprisingly, state budget woes are being cited as the major problem. The loss of state funds for prison education programs has resulted in education service-level reductions. While corrections spending has grown dramatically at the state level, education budgets have not experienced comparable growth. In fact, total education spending in 1993-1994 was actually less, overall, than in the previous year. Nine systems reported a decrease in their education budgets from fiscal year 1992-1993, and budgets in four systems remained unchanged.

Spending

Table 3 shows the total prison education budget in 1993-1994 for each of the states that responded to the survey. New York and Texas spent the most for education—$50 million and $40.7 million, respectively—while Montana, Alaska, and Wisconsin each spent less than $500,000.

When we divide the total education budget by the number of inmates in each state system, a different picture emerges. As shown in Figure 3, Minnesota tops the list, spending more than $2,000 per inmate, while most systems report spending only several hundred dollars or so per inmate.

Table 3
Total State Prison Education Budgets, 1993-1994

$40 million to $50 million	New York, Texas
$20 million to $30 million	Virginia, New Jersey, Michigan, Illinois
$10 million to $20 million	California, Washington, Georgia, Ohio, Florida
$5 million to $10 million	Colorado, Kansas, North Carolina, Oregon, Tennessee, Pennsylvania, Maryland, Connecticut, South Carolina, Minnesota
$1 million to $5 million	New Hampshire, Vermont, South Dakota, Hawaii, Iowa, Massachusetts, Arkansas, Kentucky, New Mexico
$500,000 to $1 million	Rhode Island, Idaho, Mississippi, Nebraska, Delaware
<$500,000	Montana, Alaska, Wisconsin

Source: *Corrections Compendium*, Volume XIX, No. 3, March 1994. Missouri, Oklahoma, and Wyoming are not included because their reported budgets do not include personnel costs.

Since not all inmates participate in education programs (as we will describe later), it also makes sense to divide the education budget by the number of participants. Figure 4 shows that New Jersey is the highest spending state, providing $6,517 for each program participant. Idaho, Alaska, and Wisconsin, on the other hand, each spend less than $400 per participant. Most states appear to be spending between $1,000 and $3,000 per inmate participant.

Participation

Inmates must be eligible to participate in education programs. In certain cases, some inmates are segregated from other inmates because of behavior, or other, problems, and are therefore ineligible for education services. Table 4 shows the percentage of inmates eligible to participate in education programs, by state. In 16 states, all inmates are

11 *Corrections Compendium*, Volume XIX, No. 3, March 1994. All of the information contained in this section of the report comes from a *Corrections Compendium* survey of 44 state correctional systems and the Federal Bureau of Prisons (Arizona, the District of Columbia, Indiana, Maine, Nebraska, Utah, and West Virginia did not respond to the survey).

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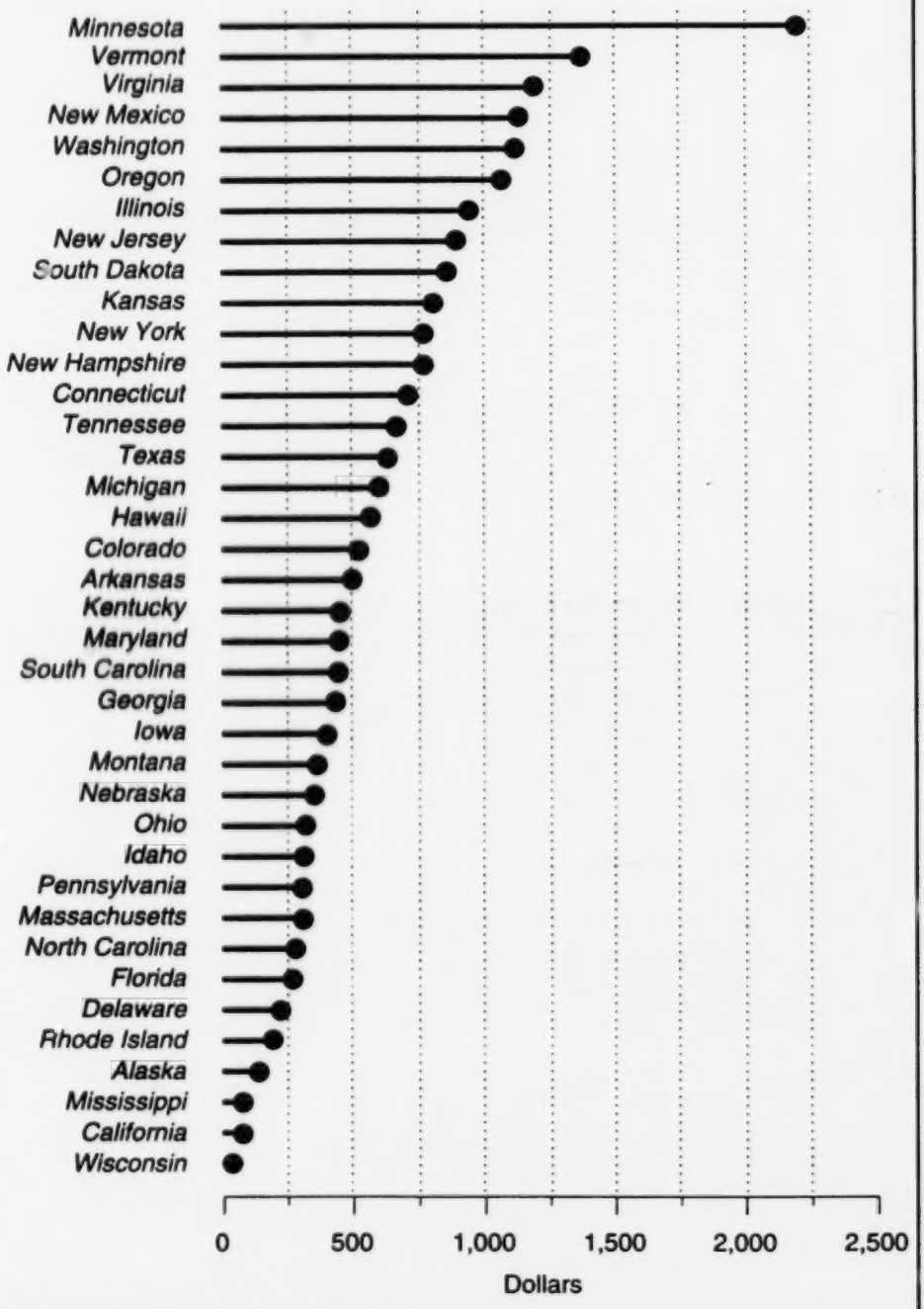
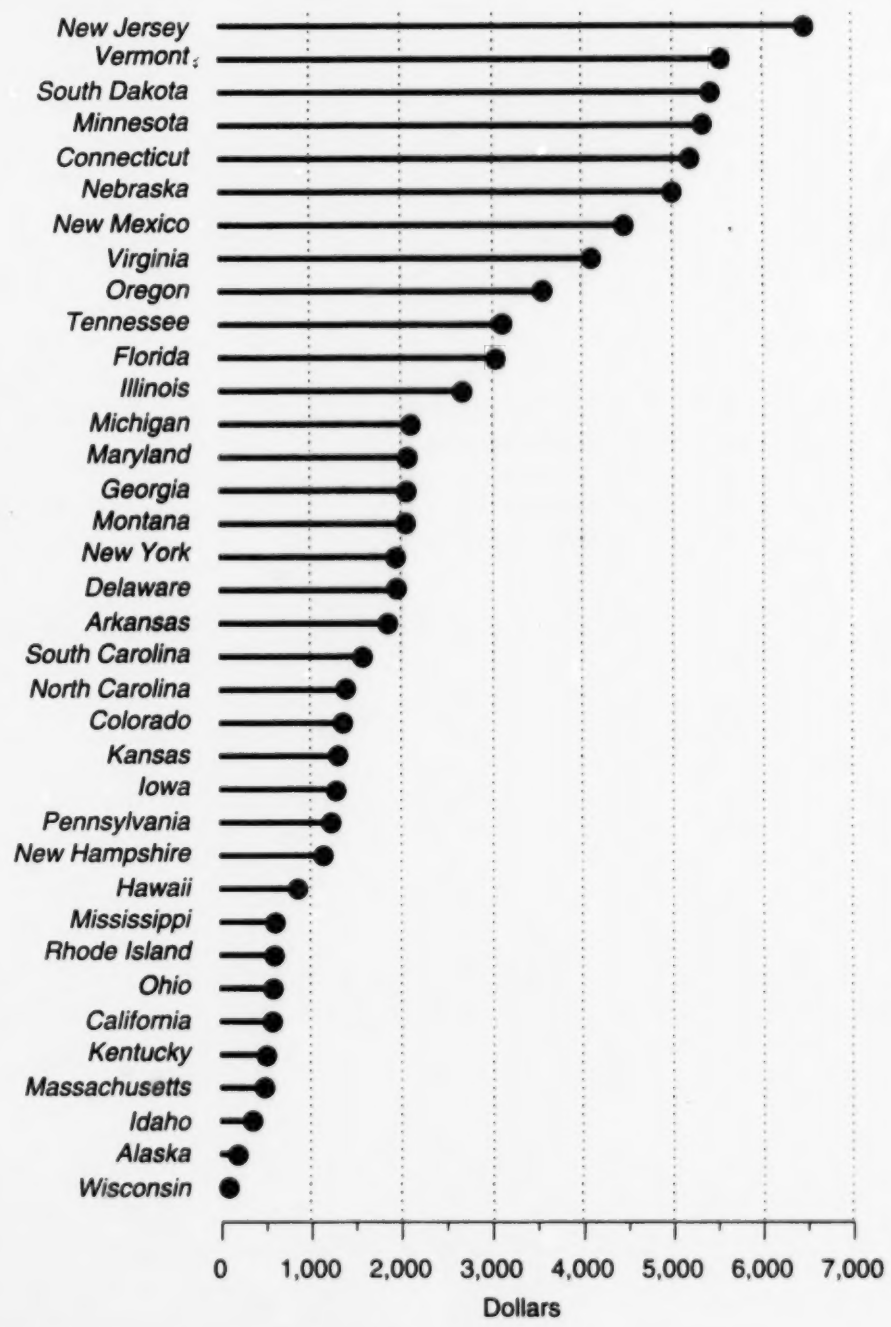
Figure 3
Total Education Budget Per Inmate, 1993-1994



Source: *Corrections Compendium*, Volume XIX, No. 3, March 1994.
Missouri, Oklahoma, and Wyoming are not included because their reported budgets do not include personnel costs.

Figure 4
Total Education Budget Per Participant, 1993-1994



Source: *Corrections Compendium*, Volume XIX, No. 3, March 1994.
Missouri, Oklahoma, and Wyoming are not included because their reported budgets do not include personnel costs.

eligible to participate. Twenty-one states report that between 70 and 99 percent are eligible.

Figure 5 shows the percentage of inmates enrolled in education programs in each state, and Table 5 shows the actual number. The enrollment percentage ranges from a high of 86 percent in Kentucky to a low of 7 percent in Nebraska. In most states, between one-quarter and one-half are enrolled.

As shown in Table 5, New York and Ohio provide services for more than 20,000 inmates, while in Delaware, South Dakota, Vermont, Montana, Nebraska, and North Dakota fewer than 500 inmates participate.

Figure 6 shows the percentage of successful program completions in each of the responding states. Success rates range from 75 percent and up in Iowa, South Dakota, and Oregon, to 20 percent or less in New Mexico, California, Ohio, Oklahoma, and Arkansas.

While corrections officials confirm that motivation was once a problem in getting inmates into the classroom, most would agree that inmates more and more realize that education is important. In fact 37 of the 44 states responding to the survey said that there was a waiting list in their systems for services. The seven states reporting no waiting lists were: Arkansas, Kansas, Montana, North Dakota, Rhode Island, South Dakota, and Vermont.

OTHER STATE POLICIES

The *Corrections Compendium* asked state corrections departments about state policies: whether education program attendance is required, whether programs are provided in a second language, and what types of incentives were provided to influence inmates to participate in programs.

Twenty-one state systems require inmates to attend classes, usually based on some criterion or set of criteria. Typical criteria for mandatory attendance are: test score, grade level, possession of a high school credential, and demonstrated literacy. One state requires program attendance as a prerequisite to paid work and another as a prerequisite for parole eligibility.

Table 4
Percentage of Inmates Eligible for Services

100 percent	Alaska, Connecticut, Delaware, Idaho Kentucky, Maryland, Missouri, Montana, Nebraska, North Carolina, Rhode Island, South Carolina, Tennessee, Texas, Vermont, Washington
90 - 99 percent	Minnesota, Georgia, Oregon, South Dakota, Hawaii, Illinois, Colorado, Florida, Michigan, Pennsylvania
80 - 89 percent	Virginia, New Hampshire, Wyoming, Massachusetts, Ohio, Oklahoma, New Mexico
70 - 79 percent	Iowa, New Jersey, North Carolina, New York
60 - 69 percent	Arkansas
45 - 55 percent	Wisconsin, Kansas
25 percent	California

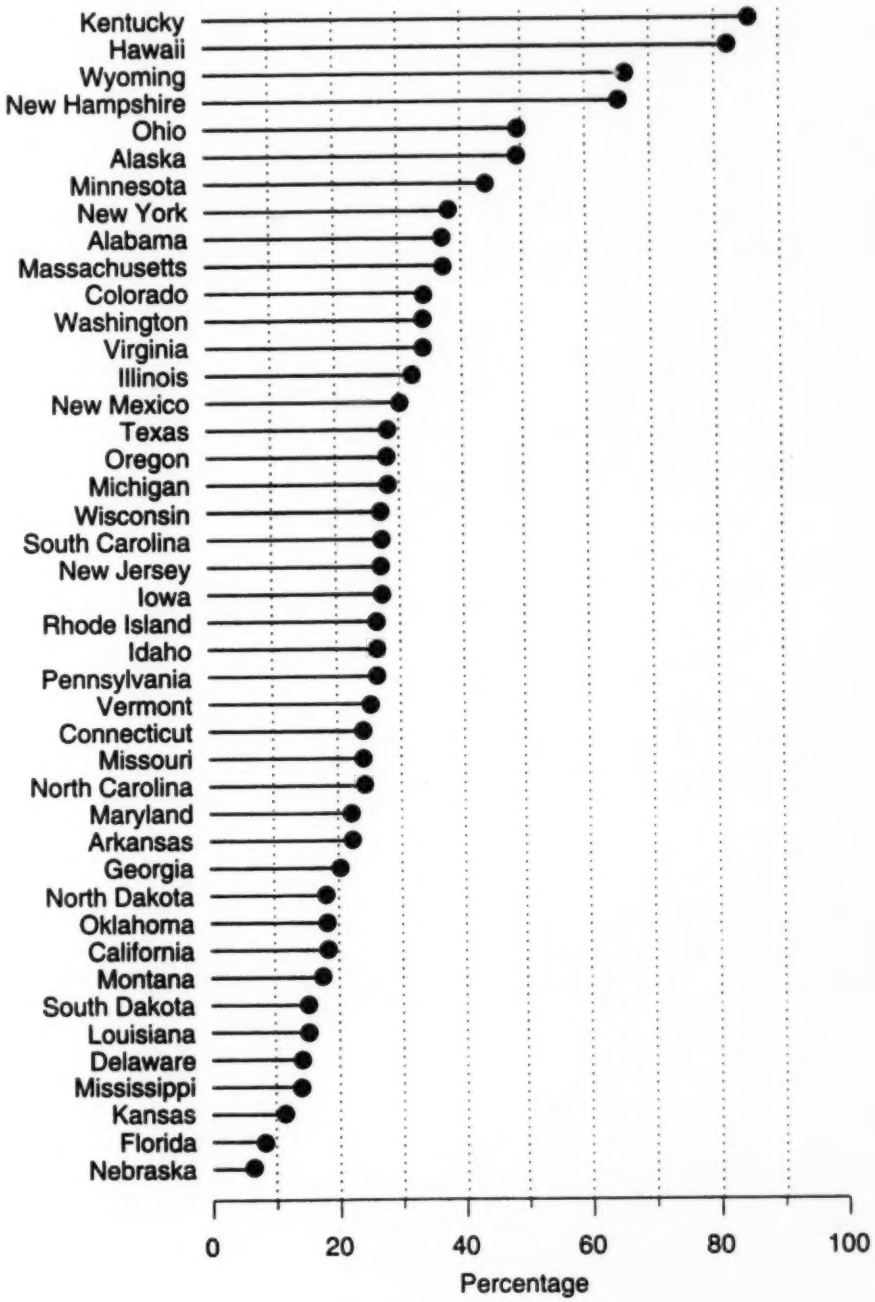
Source: *Corrections Compendium*, Volume XIX, No. 3, March 1994.

Table 5
Number of Inmate Participants in Education Programs

20,000 - 26,000	New York, Ohio
10,000 - 20,000	California, Illinois, Michigan
5,000 - 10,000	Missouri, Alabama, Kentucky, Massachusetts, Pennsylvania, Georgia, South Carolina
4,000 - 5,000	Virginia, Florida, North Carolina, Maryland
3,000 - 4,000	Kansas, Colorado, New Jersey
2,000 - 3,000	Louisiana, Wisconsin, Tennessee
1,000 - 2,000	Oregon, Idaho, Hawaii, Arkansas, Alaska, Minnesota, Connecticut, Iowa, Mississippi
500 -1,000	New Hampshire, New Mexico, Rhode Island, Wyoming
< 500	Delaware, South Dakota, Vermont, Montana, Nebraska, North Dakota

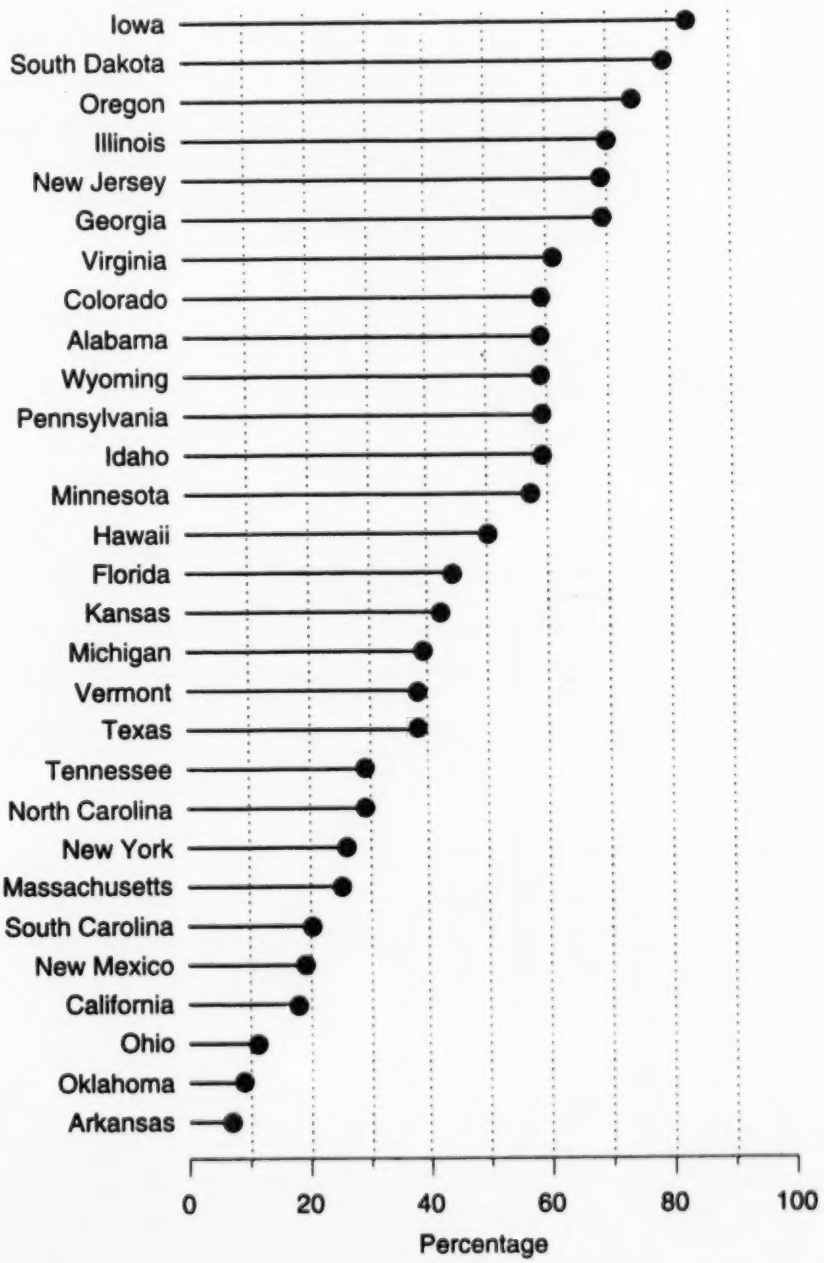
Source: *Corrections Compendium*, Volume XIX, No. 3, March 1994.

Figure 5
Percentage of Inmates Enrolled in Education Programs, by State



Source: *Corrections Compendium*, Volume XIX, No. 3, March 1994.

Figure 6
Percentage of Inmates Successfully Completing Education Programs, by State



Source: *Corrections Compendium*, Volume XIX, No. 3, March 1994.

Forty-one of the responding state corrections systems provide inmates some type of incentive for attending classes (see Table 6). Such incentives include credit for good time, wages, and other special considerations within the institution.

Finally, 21 of the systems offer instruction in a second language. These states are shown in Table 7.

Table 7
States Offering Prison Education Program in a Second Language

Alaska
Arkansas
Colorado
Delaware
Florida
Hawaii
Idaho
Illinois
Kentucky
Louisiana
Minnesota
Nebraska
New Hampshire
New Jersey
New Mexico
New York
Ohio
Oklahoma
Pennsylvania
Rhode Island
Washington

Source: *Corrections Compendium*, Volume XIX, No. 3, March 1994.

Table 6
State Incentives for Attending Education Programs

Alabama	Telephone time, pressed clothing, school is job
Alaska	Gratuities
Arkansas	Good time
California	1/2 time work incentive credits
Colorado	Wages, good time
Connecticut	Wages, good time
Delaware	Good time
Florida	Good time
Georgia	Early release credit
Hawaii	Wages, on-job training work assignments
Illinois	Wages, good time, work assignments, extra visits, phone privileges
Iowa	Unspecified
Kentucky	Good time
Louisiana	Good time
Maryland	Wages, good time, extra time off sentence
Massachusetts	Good time, favorable work assignments, transfer to lower security site
Michigan	Wages, good time
Minnesota	Wages
Mississippi	Good time
Missouri	Wages, special consideration for parole
Montana	Wages, good time
New Hampshire	Wages, extra visits
New Jersey	Wages
New Mexico	Good time
New York	Wages, temporary release, parole
North Carolina	Merit time
North Dakota	Good time, wages
Ohio	Wages, good time, work assignments
Oklahoma	Good time, achievement credits
Oregon	Good time
Pennsylvania	Wages
Rhode Island	Good time
South Carolina	Work credits, sentence reduction
South Dakota	Wages
Tennessee	Wages, sentence credits
Texas	Good time
Vermont	Good time
Virginia	Wages, good conduct credit, work assignments, parole consideration
Washington	Good time
Wisconsin	Wages, jobs, vocational instruction
Wyoming	Wages, good time

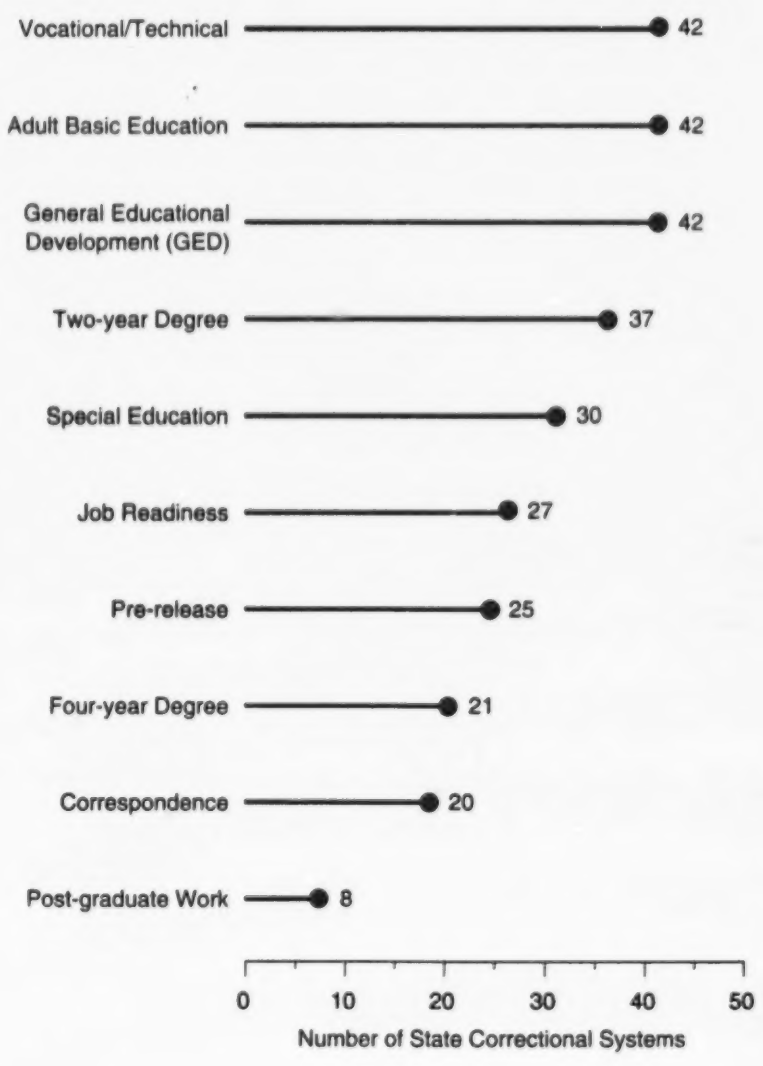
Source: *Corrections Compendium*, Volume XIX, No. 4, April 1994.

TYPES OF PROGRAMS OFFERED

Figure 7 shows the frequency of different types of program offerings. Vocational/technical, ABE, and GED programs were nearly universally offered. Special education services are offered in 30 state systems. Higher education, especially beyond the two-year degree level, was the least likely to be offered.

Table 8 shows the types of programs offered in each state.

Figure 7
Types of Education Programs Offered in State Correctional Systems



Source: *Corrections Compendium*, Volume XIX, No. 4, April 1994.

Table 8
Education Programs Offered by Correctional Institutions, by State

	ABE	GED	Voc/Tec	Job Readiness	Pre-Release	2-year Degree	4-year Degree	Post Grad	Correspondence	Special Education
TOTALS	42	42	42	27	25	37	21	8	20	30
Alabama	●	●	●			●	●			
Alaska[1]	●	●	●	●	●	●	●			
Arkansas[2]	●	●	●							●
California	●	●	●	●	●					
Colorado				●	●	●	●		●	●
Connecticut	●	●	●	●		●				●
Delaware	●	●	●			●				●
Florida	●	●	●							●
Georgia	●	●	●			●			●	●
Hawaii	●	●	●	●	●	●			●	●
Idaho	●	●	●	●	●				●	
Illinois	●	●	●	●	●	●	●			●
Iowa[3]	●	●	●	●	●	●			●	●
Kansas	●	●	●	●	●	●				●
Kentucky	●	●	●			●	●			
Louisiana		●	●			●	●			
Maryland	●	●	●	●	●	●	●	●		●
Massachusetts	●	●	●	●	●	●	●	●	●	●
Michigan	●	●	●	●	●	●	●			●
Minnesota	●	●	●	●	●	●	●	●	●	●
Mississippi	●	●	●		●	●			●[4]	
Missouri	●	●	●	●		●	●		●	●
Montana	●	●	●			●	●	●	●	
Nebraska	●	●		●	●	●			●	●
New Hampshire	●		●		●	●	●	●		●
New Jersey	●	●	●	●						●
New Mexico	●	●	●	●	●	●			●	●
New York	●	●	●			●	●	●		●
North Carolina	●	●	●	●	●	●	●		●	●
North Dakota	●	●	●		●	●				●
Ohio	●	●	●	●	●	●	●		●	●
Oklahoma	●	●	●			●	●	●		
Oregon	●	●	●	●	●	●				●
Pennsylvania	●	●	●	●		●			●	●
Rhode Island	●	●	●	●		●				●
South Carolina	●	●	●	●	●	●			●	●
South Dakota	●	●	●	●	●				●	●
Tennessee	●	●	●	●	●	●	●		●	
Texas	●	●	●		●	●	●	●	●	●
Vermont	●	●	●	●						
Virginia	●	●	●			●	●			
Washington	●	●	●			●				
Wisconsin	●	●	●			●				●
Wyoming	●	●	●	●	●	●	●		●	

1 Job readiness and pre-release are part of life-skills education.
2 Inmates are placed in grade levels, not identified as ABE or GED.
3 Four-year degree and graduate work are provided if requested and paid for by the inmates.
4 Offered at inmate's request.

Source: *Corrections Compendium*, Volume XIX, No. 3, March 1994.

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What Prison Education and Training Programs Accomplish

The use of education and training in prison programs has fluctuated with society's alternating emphasis on rehabilitation and punishment. But the use of education goes back a long way, and it became pervasive in prisons in the 1930s.

Despite this long history, careful studies of the effects of these efforts were slow in coming. While there have now been a considerable number of studies, we have not yet come to complete closure on the costs and benefits.

An influential and widely known assessment of efforts at rehabilitation was published in 1975 by Lipton, Martinson, and Wilks.[12] This book called into question the efficacy of most attempts at rehabilitation, after a stretch of renewed optimism and activism, beginning in the 1960s. Martinson also published a review of studies in 1974, with a similar conclusion. In general, it was a "nothing works" hypothesis.

Lipton et al. did conclude that "offenders are amenable to training and education . . . [and] can generally improve basic educational skills, given the teacher's real concern, personal interest, and dynamic instruction." But what was wanted was hard results.

A comprehensive evaluation and summation of the next 20 or so years of research, by Gerber and Fritsch, also took another look at the Lipton, Martinson, and Wilks review, and disagreed with the conclusions drawn. In their opinion, "A close reading of Martinson's discussion, however, shows the studies he cited do not support his conclusions."[13]

The Gerber and Fritsch review was an ambitious undertaking. Each study was evaluated on its methodology, with ratings based on factors such as control groups, matching vs. random assignments of subjects, use of statistical controls, and use of tests of statistical significance. Sorting out those publications that met none of the criteria for inclusion, they report on the results of 72 studies, most of them conducted in the 1980s and early 1990s. A brief summary follows.

Basic and secondary education. The conclusion: "A few researchers found no evidence that adult academic education has any positive effects on recidivism, but the most common finding . . . is that inmates exposed to education programs have lower recidivism rates than nonparticipants."

- Of 14 findings regarding recidivism, nine showed positive effects.
- Of four findings regarding post-release employment, three showed positive effects.
- Of two findings regarding post-release participation in education, both showed positive effects.

Vocational education. The conclusion: "Most of the research conducted in recent years shows a correlation between vocational training and a variety of outcomes generally considered positive for either society or for correctional institutions."

- Of 13 findings regarding recidivism, 10 showed positive effects.

12 D. Lipton, R. Martinson, and J. Wilks, *The Effectiveness of Correctional Treatment*. New York: Praeger, 1975.
13 J. Gerber and Eric J. Fritsch, *Prison Education and Offender Behavior: A Review of the Scientific Literature*. Prison Education Research Project, Report 1, July, 1993.

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- Of seven findings regarding post-release employment, five showed positive effects.
- Of two findings regarding disciplinary problems, both showed positive effects.

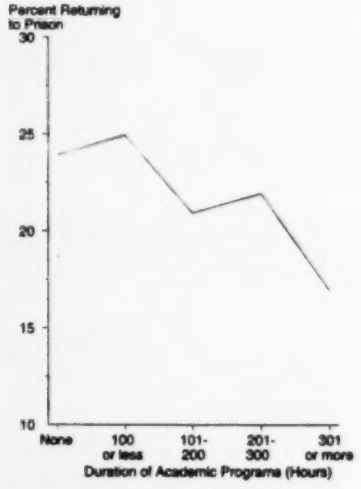
College education. The conclusion: "Numerous studies have shown a clear and fairly consistent correlation between collegiate studies and recidivism, and between college and variables measuring personal growth. At the same time, some critics have pointed out methodological weaknesses in the research, and caution against overoptimistic interpretations."

- Of 14 findings regarding recidivism, 10 show a positive effect.
- Of three findings regarding post-release employment, all show a positive effect.
- Of three findings regarding disciplinary problems, one shows a positive effect.
- Of two findings dealing with post-release participation in education, both show a positive effect.

The authors, Gerber and Fritsch, identify factors "that explain why some programs are more successful than others in achieving their stated goals." To do this, they draw upon a review of 10 successful programs by Rice et al.[14], Luiden and Perry's[15] review of the literature, and their own review:

- The more extensive the educational program, the more likely it is to achieve its stated objectives. In New York, for example, inmates who earned a GED were less likely to return to prison than those who attended classes but did not earn a GED.
- Programs that are separate from the rest of the prison are more likely to succeed.
- Programs that provide follow-up after release are more likely to succeed.

Figure 8
Duration of Academic Programs by Percentage Returning to Prison



Source: K. Adams et al. "A Large-Scale Multidimensional Test of the Effect of Prison Education Programs on Offenders' Behavior," *The Prison Journal*, Vol. 74, No. 4, December 1994 (adapted from Table 4, p. 44).

- Programs need to select the audiences they were designed for.
- Skills provided need to match those needed in the contemporary job market.

While the authors find support for the hypothesis that education can reduce recidivism, future research must do better in controlling for extraneous variables that may have an independent effect on such outcomes. Tracy and Steurer recently reviewed a number of studies and found similar results.[16]

Although the Gerber and Fritsch work did not address the need for programs of substantial duration, rather than short-term classes, a subsequent examination based on 14,000 inmates released from Texas prisons in 1991 and 1992 suggests that duration is important (see Figure 8). This large undertaking was carried out by Adams et al.[17] The team included Gerber and Fritsch, authors of the study reported above.

[14] E. Rice et al. "Assessment of Quality Vocational Education in State Prisons." Executive Summary. Final Report, 1980.
[15] R. Luiden and D. Perry, "An Evaluation of a Prison Education Program," *Canadian Journal of Criminology*, 1984.
[16] A. Tracy and S. Steurer, *Correctional Education Programming: The Development of a Model Evaluation Instrument*, Lanham, MD: Correctional Education Association, September 1995.
[17] K. Adams et al. "A Large-Scale Multidimensional Test of the Effect of Prison Education Programs on Offenders' Behavior," *The Prison Journal*, Vol. 74, No. 4, December 1994.

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Among other things, the study recorded the duration of the education and training inmates received while in prison.

The effects for vocational education programs were similar, but were less pronounced. When duration was ignored in the comparisons between those who participated and those who did not, no differences in post-prison outcomes were found. This suggests that duration should be a key factor in such evaluations. In other settings, outside prison, very short-term education and training show little result.

Most of the evaluations are of state prison programs. A significant development at the federal level in the Bureau of Prisons has been the introduction, in May 1991, of mandatory literacy programs for all prison inmates who are functionally illiterate but "mentally capable." At first, participation was mandatory for the period sufficient to reach an eighth-grade level. This was later raised to a minimum of 120 days and a twelfth-grade level, evidenced by receiving a GED. The bureau offers many other voluntary programs, covering more than 40 vocational areas.[18]

While there are mandatory requirements for basic education, that is not the predominant reason inmates say they attend. Opportunity for self-improvement and the desire to obtain marketable skills are the leading reasons given (see Figure 9).

The actual results on the vocational side were evaluated in the Bureau of Prisons' Post-release Employment Project study. According to Quinlan, the study found "that inmates involved in Federal Prison Industries job assignments, vocational training or both, had better institutional adjustments, were less likely to recidivate, more likely to be employed, and earned slightly more after release from prison."[19] Basic education, presumably, aided in successful vocational preparation.

Looked at as a whole, the evaluation results of the last couple of decades (and of some earlier studies) provide a basis for guarded optimism about the efficacy of training and education approaches, in bottom-line cost-effectiveness terms. But we know from these evaluations, as well as from observations of programs in nonprison settings, that employment success will depend on the quality and durations of these programs, as well as on follow-up in job placement and the state of the local labor market, in terms of employment success.[20] And if we are to gain greater certainty about the quality of the training and education programs, the durations needed, and the payoffs, we need to invest in the kind of experimental designs employed by the Manpower Demonstration Research Corporation in New York and Public Private Ventures in Philadelphia. These organizations have used random assignment in their studies. If this proves impossible in prison settings, less rigorous approaches will have to be used.

A new survey instrument and design was completed in the fall of 1995 by the Correctional Education Association, under a grant from the National Institute of Justice. It will be tried on a pilot basis in several states.[21]

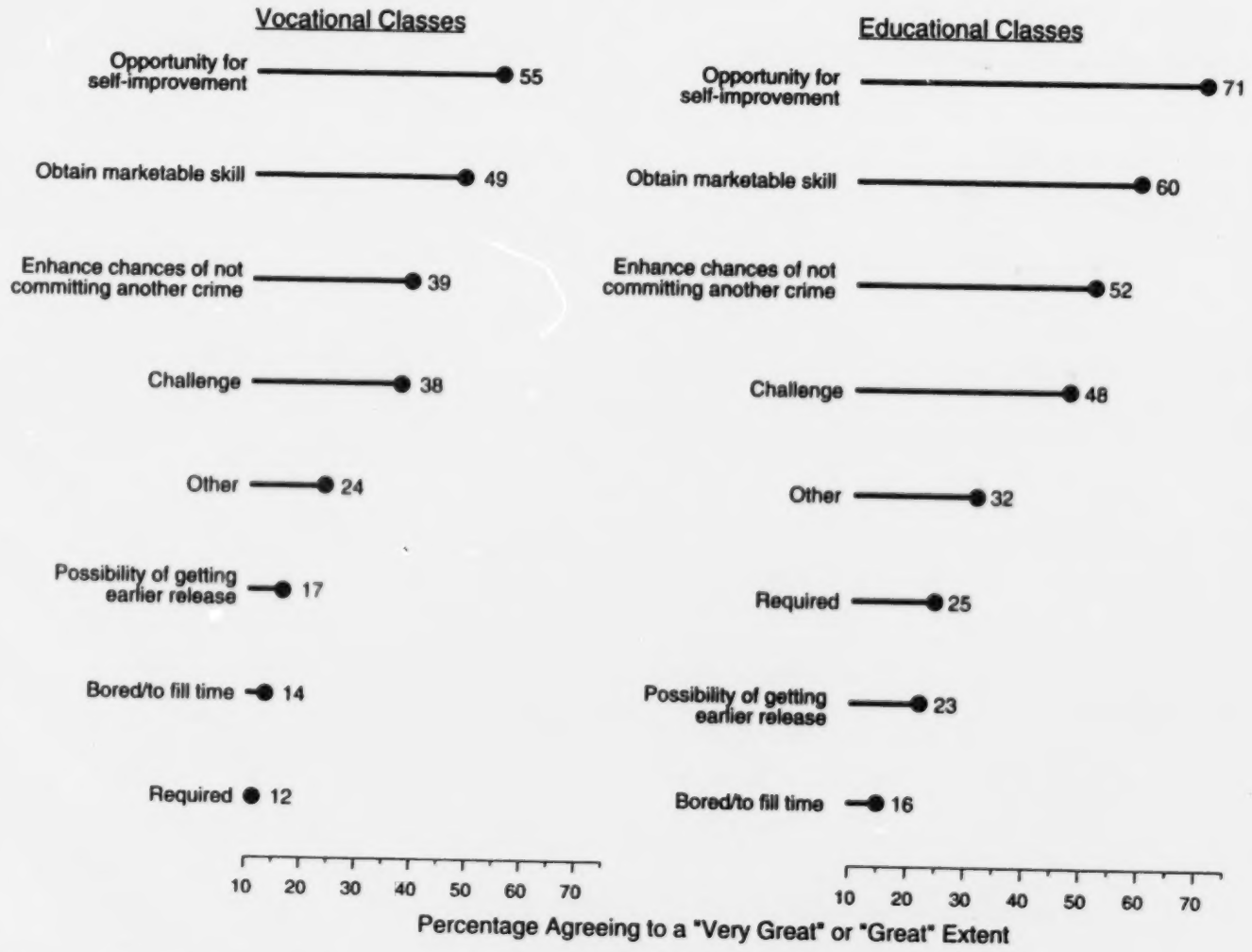
18 *Federal Prisons: Inmate and Staff Views on Education and Work Training Programs*, General Accounting Office, 1993.

19 Michael J. Quinlan, "Education: Corrections Vital Link to the Real World," in *Corrections and Higher Education Monograph*, Training Resource Center, Eastern Kentucky University, Richmond, Kentucky, 1991.

20 For a recent review of education and training efforts directed at welfare recipients, see *Literacy and Dependency: The Literacy Skills of Welfare Recipients in the United States*. ETS Policy Information Center, 1995.

21 Tracy and Steurer, 1995.

Figure 9
Major Reasons for Participating in Vocational Training and Education Programs


Vocational Classes
Opportunity for self-improvement 55
Obtain marketable skill 49
Enhance chances of not committing another crime 39
Challenge 38
Other 24
Possibility of getting earlier release 17
Bored/to fill time 14
Required 12
10 20 30 40 50 60 70
Educational Classes
Opportunity for self-improvement 71
Obtain marketable skill 60
Enhance chances of not committing another crime 52
Challenge 48
Other 32
Required 25
Possibility of getting earlier release 23
Bored/to fill time 16
10 20 30 40 50 60 70
Percentage Agreeing to a "Very Great" or "Great" Extent

Source: *Federal Prisons, Inmate, and Staff Views on Education and Work Training Programs*, General Accounting Office, Jan. 1993, pp. 31-32.

In Conclusion

We have seen in this report that

- We have a history in this country of vacillating between punishing and rehabilitating or educating our prison population.

- We know from the 1992 National Adult Literacy Survey that the literacy of prisoners is very low. We certainly know that it is lower than what is generally required in the labor market.

- While the research is less than definitive, a great many studies have established that training and education in prisons leads to increased post-release success in the labor market and to reduced recidivism.

- Expenditures on education and training are falling, while expenditures for prisons are exploding, and the prison population is growing.

What should we make of all this? It is the purpose of Policy Information Reports to inform policy debates, not to prescribe solutions to policy problems. But, in this instance, there is little debate taking place. The press is filled with stories on crime, growing incarceration rates, expensive prison-building programs, and legislation to fight crime. Next to nothing is said about literacy and its relation to post-prison success. By raising the issue of literacy in this context, we hope to start a debate about it.

Is raising the literacy level of prisoners a "soft" approach, or is it a "hard-headed" approach? We note that 21 states require participation in education programs, depending on the level of education already attained.

Is literacy improvement a duty of those incarcerated, or is it some kind of amenity, like movies and recreation?

Who is right—the states doing very little, or the states doing a lot?

With so many of our young adults incarcerated, and such a large proportion of these minority youth, are we comfortable with their overall low levels of literacy? Most of these youthful prisoners will be released back into society. Should we let them remain so unprepared for employment and citizenship responsibility?

We are polarized as a nation on the question of how to deal with crime and how to treat prisoners. Perhaps we are much less polarized on the question of whether it is in our self-interest to make sure our ex-prisoners are literate. This is the question we raise by issuing this report: should these captives also be students?